

Does WTO financial negotiation promote foreign banks' expansion in developing countries?

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1. Literature Review

After the end of WTO financial services negotiations in 1997, only a minority of literatures made its assessment and analysis on the outcome of such negotiations. Dobson and Jacquet pointed out that although many countries had improved their offers over the course of the negotiations, it told little about the degree of market access thus achieved. "There is no single indicator of market access that could help to rank countries on a single scale according to existing barriers so that the corresponding contribution of the Financial Service Agreement in removing partly or totally some of these barriers could be judged." They compared a part of commitments with the corresponding actual regulatory policies of financial sectors in 11 countries, and concluded that only two countries were more open in their commitments than their actual policies, and eight countries remained unchanged. Thus they concluded "the actual liberalization in the banking sector does not seem to have happened."¹

Cornford commented that the WTO financial services agreement enhanced the transparency of members' current policy rather than promoting the market openness. The commitments, which were made by many countries, were more like confirmations of policies status quo, while some were even more backwards than the actual ones.²

Mattoo analyzes the commitment of agreement made by all members, but he does not discuss the contribution of such commitments to market openness.³ Barth et al, for the first time, coordinated and quantified a large sample of the commitments and actual policy information with subjective criteria. On this basis, they compared the differences and figures out that the liberalization degree of commitments is lower than that of actual policies, particularly for developing countries.⁴ However, the paper didn't further use those data analyzing the negotiation impact.

Most existing literatures only pay attention to the clauses difference between negotiation

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¹ Dobson, W., Jacquet, P. *Financial Services Liberalization in the WTO*. Washington D.C.: Institute for International Economics, 1998

² Cornford, A. "The WTO negotiations on financial services: current issues and future directions." *UNCTAD Discussion Paper*, 172(2004).

³ Mattoo, A. "Financial services and the world trade organization." *World Bank Policy Research Working Paper*, 2184 (1998).

⁴ Barth, J., Marchetti, J., etc. "Foregin banking: do countries' WTO commitments match actual practices?" *WTO staff working paper*, ERSD-2006-11.

commitments and regulatory policies. However, commitments can bind the government policies helping to set the policy reputation. And policies themselves can not. So maybe it is not appropriate to assess the impact of commitments only based on their clauses difference from regulatory policies. This paper, based on the new available data of commitments and regulatory policies, quantitatively analyzed the negotiation effect.

2. Model

Based on the modeling methods of Claessens et al⁵ and Yamori⁶, the following econometric model was set:

$$Y_i = \alpha + P_i\beta + C_{-t,i}\gamma + \varepsilon_i \quad i=1, 2, \dots, N \quad (1)$$

where Y is the asset share of foreign banks in country i, used as the proxy variable of foreign banks' expansion in developing countries; α is the constant; P is the policy variable vector, including regulatory practices and negotiation commitments of country i; β is the coefficient vector of policy variables; C is the vector of covariables, including banking variables, macroeconomic variables, institution variables et al; γ is the coefficient vector of covariables; ε is the random error; the subscript, i indicates different countries; the subscript -t indicates that the covariables are reversely lagged relative to dependent variable. I used the data of 2005 for dependent variable, but simple average from 2000 to 2004 for covariables.

There is a potential omitted variable error for the estimation of equation (1) because some affecting factors may be unobservable and the data of some variables are unavailable. For such a reason, I modified equation (1) to equation (2), adding lagged dependent variable as an independent variable. I use the lagged dependent variable, Y_{-t} , as the proxy of omitted variables to control the estimation errors.

$$Y_i = \alpha + P_i\beta + C_{-t,i}\gamma + Y_{-t} + \varepsilon_i \quad i=1, 2, \dots, N \quad (2)$$

I chose the covariables according to the conclusion from existing literatures. Market opportunity is the most popular explanation held by existing literatures. Claessens et al, Yamori, Goldberg & Johnson⁷, Brealey & Kaplanis⁸, all agree that the host country with high GDP or GDP per capita will attract more foreign banks. Focarelli & Pozzolo reported that high GDP per capita, low inflation and high stock market capitalization are associated with high probability of

⁵ Claessens, S., Demirguc-Kunt, A., et al. "How does foreign entry affect domestic banking markets?" *mimeo*, 1998

⁶ Yamori, N. "A note on the location choice of multinational banks: the case of Japanese financial institutions." *Journal of Banking & Finance*, 1998, 22 (1): 109-120.

⁷ Goldberg, L., Johnson, D. "The determinants of US banking activity abroad." *Journal of International Money and Finance*, 9 (2), 1990: 123-137.

⁸ Brealey, R., Kaplanis, E. "The determination of foreign banking location." *Journal of International Money & Finance*, 15 (4), 1996: 577.

foreign bank entry.⁹

According to the above, this paper uses the following covariables: GDP per capita, indicating national income level; the ratio of total banking assets over GDP and the rate of banking credit over GDP, indicating banking development level; stock market capitalization, indicating stock market development level.

Banking efficiency and market structure are also important factors that existing literatures have paid attention to. Claessens et al reported that the host countries with the following local banking characteristics have more foreign banks: low ratio of overhead cost over total assets, low ratio of non-interest income over total assets, low tax rate. They do not find banking profit play an important role in attracting foreign banks. Focarelli & Pozzolo reported that among OECD countries, foreign banks tend to invest in host countries with low local banking efficiency, such as high overhead cost or low net interest income. Bonin & Abel reported that in Hungary, foreign banks have developed deposit and consuming credit market and local banks have to look for new market opportunities.¹⁰ Studying American banking market, Amel & Liang reported that the existing banks' high profit, market scale and potential growth are important factors attracting foreign banks.¹¹

About market structure, the World Bank gave a review that there are two opposite theoretical viewpoint. One is high market concentration, generating strong monopoly power, which will waken competition and efficiency. Another is the increase of market concentration which will promote efficiency if there is scale economy. In developing countries, the banking market is usually highly concentrated and less competitive. So high market concentration may be harmful for banking efficiency and affect foreign banks entry in developing countries.¹² Claessens et al concludes that market concentration is negatively associated with foreign bank entry. However, Focarelli & Pozzolo did not find the impact of host countries' market concentration on probability of foreign bank entry.

According to above, this paper employed the following covariables: the ratio of overhead cost over total assets and the ratio of net interest income over total assets, indicating banking efficiency; the top 3 banks' asset share and interest rate spread, indicating degree of market competition.

Institutional environment is also thought important for foreign bank entry. Grosse &

⁹ Focarelli, D., Pozzolo, A. "The determinants of cross-border shareholding: an analysis with bank-level data from OECD countries." *Paper presented at the Federal Reserve Bank of Chicago Bank Structure Conference*, Chicago, IL. Processed.

¹⁰ Bonin J., Abel I. *Retail banking in Hungary: a foreign affair?* Wesleyan University. Middletown, CT. Processed.

¹¹ Amel, D. F., Liang J. N. "Determinants of Entry and Profits in Local Banking Markets." *Review of Industrial Organization*, 12 (1), 1997: 59-78.

¹² World Bank. *World Development Report 2002 (Chinese version)*. Beijing: China Finance & Economy Press, 2002: 88-89

Goldberg¹³, Yamori took the country risk factor (Euromoney's country risk indicator) into account, finding that foreign banks tend to invest in countries with stable economy. Focarelli & Pozzolo tested the impact of legal efficiency on foreign bank entry, but did not observe significant effect. This paper uses the legal scores from ICRG (International country risk guide) and governance indicators from WGI (worldwide governance indicator) as covariables to control the potential impact of institution environment.

The following client strategy is a controversial issue. Clarke et al reported that foreign banks' investment in U.S. and U.K. is associated with FDI of nonfinancial sectors.¹⁴ However, the foreign banks and foreign nonfinancial enterprises in a host country are not always from the same mother country, so their observation can not justify the following client hypothesis. For example, Seth et al (1998) found that in the U.S. market, foreign banks and a part of their clients are not from the same mother countries.¹⁵ Milller & Parkhe pointed out that the investment correlation between foreign banks and foreign nonfinancial enterprises can not be observed in developing host countries.¹⁶ So this paper did not take the following client strategy into account.

3. Data

The dependent and independent variables in equation (1) and (2) are listed in table 1.

Because it would take some time for banks to change their investment strategies in foreign markets and there are only 2001 and 2005 data of dependent variable available after FSA enter into force in 1999, I used the 2005 data of asset share for model estimation. For covariables, I used the average of 2000 to 2004. I used a 42 countries sample for estimation, of which 67% countries made conservative commitments and 33% countries made radical commitments. Conservative commitments are more restrictive than actual regulatory policies and radical commitments are less restrictive than actual regulatory policies. The classification of commitments was according to index score of commitments and actual regulation from Barth et al (2006).

¹³ Grosse, R., Goldberg, L. "Foreign bank activity in the United States: an analysis by country of origin." *Journal of Banking and Finance*, 1991, December: 1093-1112

¹⁴ Clarke, G., Cull, R., et al. "Foreign bank entry: experience, implications for developing economies, and agenda for further research." *World Bank Research Observer*, 2003, 18 (1): 25.

¹⁵ Seth, R., Nolle, D., et al. "Do banks follow their customers abroad?" *Financial Markets, Institutions, and Instruments*, 7(4), 1998:1-25.

¹⁶ Milller, S., Parkhe, A. "Patterns in the expansion of U.S. bank's foreign operations." *Journal of International Business Studies*, 29(2), 1998: 359-390.

Table 1 variable list

name	explanation	resource
Assetshr	Assets of all foreign banks as a share of assets of all commercial banks	Barth et al (2001) ¹⁷
Commt	Standardized score of members' commitments in FSA, varying from 0 to 1 with the limitation to banking service trade getting tightly.	Barth et al (2006) ¹⁸
Regula	Standardized scores of members' practiced supervision & regulation policies, ranging from 0 to 1 with the limitation to banking getting tightly.	Barth et al (2006)
Concentration	Assets of three largest banks as a share of assets of all commercial banks.	Beck et al (2000) ¹⁹
Credit/GDP	Private credit by commercial banks to GDP	Beck et al (2000)
Assets/GDP	Claims on domestic real nonfinancial sector by commercial banks as a share of GDP	Beck et al (2000)
Stmktcap/GDP	Value of listed shares to GDP	World Bank ²⁰
Ovc/assets	Accounting value of all commercial banks' overhead costs as a share of their total assets	Beck et al (2000)
Intmargin/assets	Accounting value of all commercial banks' net interest revenue as a share of total assets.	Beck et al (2000)
Taxrate	Standardized scores of income tax rate from EFW	Gwartney et al (2007) ²¹
GDP/cap	GDP per capita (constant 2000 US\$)	World Bank
Inflation	consumer prices (annual %)	World Bank
governance	Standardized scores of Worldwide Governance Indicator by World Bank, ranging from -2.5 (worst governance) to 2.5 (best governance)	Kaufmann & Kraay ²²
Law	scores of law & order index of International Country Risk Guide, ranging from 0 (Iak law & order) to 10 (strong law & order)	Knack & Keefer ²³

¹⁷ Barth, J., Caprio, G., et al. "The regulation and supervision of banks around the world - a new database, Volume 1." *World Bank Policy Research Working Paper*, WPS2588,2001.

¹⁸ Barth, J., Marchetti, J., et al. "Foregin banking: do countries' WTO commitments match actual practices?" *WTO staff working paper*, ERSD-2006-11.

¹⁹ Beck, T., Demirgüç-Kunt, A., et al. "A new database on financial development and structure." *World Bank Economic Review* 14, 597-605.

²⁰ World Bank. *World Development Indicators Database*.

²¹ Gwartney, J., Lawson, R., et al. *Economic freedom of the world: 2007 annual report*. The Fraser Institute.

²² Kaufmann, D., Kraay, A., et al. "Governance Matters VI: Governance Indicators for 1996-2006." *World Bank Policy Research Working Paper* No. 4280

²³ Knack, S., Keefer, P. "Institutions and economic performance: cross-country tests using alternative institutional measures." *Economics and Politics*, 7: 207-227.

4. Basic estimation results

4.1 Benchmark regression

Table 2 reported the benchmark regression results. Column 1 is the estimation of equation (1), column 2 is the estimation of equation (2) and column (3) is a variation of column (2), which added the interaction of regulation score (regula) and commitment score (comt) as independent variables. The effect of commitments is significant in column (2) but insignificant in column (1). The coefficients of some covariables in column (1) and (2) are also different. It seems that the omitted variable error in equation (1) is important, which is a major source of the difference between column (1) and (2). Further, in column (3), the jointly significance test of commitment score and the interaction term show the two variables' coefficients jointly insignificant. And the goodness of fit of column (2) is better than that of column (3). So I prefer the estimation result in column (2), which is looked as the benchmark specification in this paper.

Column (2) of table 2 presents clear effects of independent variables. Regulation (regula) and commitments (comt) are all significantly negatively correlated with foreign banks' asset share, which means that, keeping regulatory policies unchanged, countries with more liberal commitments will be more attractive for foreign banks expanding asset share.

GDP per capita is significantly correlated with foreign banks' asset share, which is consistent with the conclusion of other literatures. Bank credit scale variable (credit/GDP) is significantly negatively correlated with foreign banks' asset share, which is consistent with the conclusion of Miller & Parkhe, but different from the conclusion of Amel & Liang and Focarelli & Pozzolo. Their samples consisted of developed countries mainly, which may lead to different conclusion from this paper. Market concentration is significantly positively correlated with foreign banks' asset share, showing that high market concentration is helpful for foreign banks' expanding. A possible explanation is that high concentration is associated with low extent of competition, which leaves large market opportunities to efficient foreign banks.

In fact, GDP per capita, bank credit scale and market concentration jointly indicates the market opportunities and potentialities in developing countries. High GDP per capita predicts large scale of demand. Low credit scale shows great market potentiality. High concentration indicates weak competition.

From table 2, an initial conclusion can be drawn that the negotiation commitments do have impact which is independent on actual regulatory polices. More liberal commitments are associated with larger asset share of foreign banks.

Table 2 Benchmark regression

Dependent variable: assetshr ₂₀₀₅ , OLS estimation			
	(1)	(2)	(3)
Regula	-.0942592** <i>.0351712</i>	-.0758735** <i>.0303924</i>	-.0751465** <i>.0310155</i>
comt	-.0546239 <i>.0527912</i>	-.1037629** <i>.0470187</i>	-.1092414** <i>.0525611</i>
regula×comt			.0080942 <i>.0323885</i>
GDP/cap	.0000287* <i>.0000156</i>	.000035** <i>.0000134</i>	.0000345** <i>.0000138</i>
inflation	.0069763 <i>.0104475</i>	.0024289 <i>.0089881</i>	.0028736 <i>.0093037</i>
taxrate	-.0667286 <i>.0505622</i>	-.0232802 <i>.0447474</i>	-.0181562 <i>.0498731</i>
credit/GDP	-.0020552 <i>.0012899</i>	-.00269*** <i>.0011128</i>	-.002687** <i>.0011307</i>
stmktcap/GDP	-.0967741 <i>.1436885</i>	-.1418387 <i>.1230187</i>	-.1454671 <i>.1258277</i>
concentration	.0047196** <i>.002099</i>	.0054217*** <i>.0017983</i>	.0054437*** <i>.0018292</i>
overhead/GDP	-.0264271 <i>.0233169</i>	-.0268871 <i>.0198577</i>	-.0277559 <i>.0204728</i>
law	.0300452 <i>.0863921</i>	.0534601 <i>.0738658</i>	.0552685 <i>.0753959</i>
assetshr ₂₀₀₁		-.0678162*** <i>.0189978</i>	-.0677974*** <i>.019302</i>
constant	.3121024 <i>.1993817</i>	.3455269* <i>.1700572</i>	.3443174* <i>.1728462</i>

Column 1: 42 observations; F-test P= 0.001; Ad-R²= 0.4683; AIC=-1.30; B-P heteroskedasticity test P=0.56;
Column 2: 42 observations; F-test P= 0.000; Ad-R²= 0.6144; AIC=-14.17; B-P heteroskedasticity test P=0.85;
Column 3: 42 observations; F-test P= 0.000; Ad-R²= 0.6019; AIC=-12.26; B-P heteroskedasticity test P=0.85;
Standard errors are listed in italics. ***, **, * = significant at 1%, 5%, 10%, respectively.

4.2 Robustness test

Table 2 shows that lagged dependent variable is important to control the omitted variable error. So I first checked whether the estimation results of benchmark specification depend on the data time of lagged dependent variable. I used the lagged dependent variable data in 1995 and the

average of lagged dependent variable data in 1995, 1996 and 2001²⁴ respectively substituting for the 2001 data. The result was reported in column (1) and (2) of table 3. The coefficients, signs, significant levels and numerical values of variable regulation (regula) and commitment (comt) changed a little, compared with column (2) of table 2. Other covariables' coefficients also kept relatively stable. So the benchmark specification estimation results do not depend on the data time of lagged dependent variable.

Because different proxy variables for the same factor may lead to different parameter estimation results, I substituted respectively banking asset scale (asset/GDP), general governance level (governance) and interest income (intmargin/as) for banking credit scale (credit/GDP), law & order level (law) and overhead cost (ovc/as). The results were reported in column (3) – (5), which presented that different proxy variables of financial development factor, institution factor and bank performance factor do not change the effects of regulation and commitments much.

5. Empirical estimation of conservative commitments' effect

So far, session 4 concluded that the commitments have generally significant impact on foreign banks market access in developing countries. However, most of the existing literatures agree that the negotiation achieved small successes because of many countries making conservative commitments. So for further study, the commitment types should be differentiated. In the sample this paper used, one third of countries made radical commitments which are more liberal than existing regulatory policies, and other countries made conservative commitments which are less liberal than existing regulatory policies²⁵. For added analysis I tested if the conservative commitments affect the benchmark specification's estimation result.

²⁴ The available data are sufficient only in 1995, 1996 and 2001.

²⁵ The criteria of differentiation is the conclusion of Barth et al.

Table 3: Robustness test for benchmark regression

Dependent variable: assetshr ₂₀₀₅ , OLS estimation					
	(1)	(2)	(3)	(4)	(5)
Substituting variables ²⁶ :	Assetshr ₉₅	Assetshr ₉₅₋₀₁	Asset/GDP	Governance	Intmargin/as
	5				
regula	-.0778** <i>.0298</i>	-.071** <i>.0294</i>	-.09*** <i>.0292</i>	-.065** <i>.027</i>	-.072** <i>.03</i>
comt	-.0976** <i>.0457</i>	-.1039** <i>.0449</i>	-.0939** <i>.0439</i>	-.102** <i>.043</i>	-.086* <i>.0471</i>
GDP/cap	.00004** <i>.00001</i>	.00004** <i>.00001</i>	.00004*** <i>.00001</i>	.00003** <i>.00001</i>	.00003** <i>.00001</i>
inflation	.0022 <i>.0088</i>	.0021 <i>.0086</i>	.0026 <i>.0087</i>	.0046* <i>.0026</i>	.0014 <i>.0093</i>
taxrate	-.0034 <i>.0456</i>	-.0143 <i>.0434</i>	-.0151 <i>.0434</i>	-.0031 <i>.0419</i>	-.0243 <i>.045</i>
credit/GDP	-.0027** <i>.0011</i>	-.0026** <i>.0011</i>		-.0028*** <i>.001</i>	-.0024** <i>.001</i>
stmktcap/GDP	-.139 <i>.1209</i>	-.145 <i>.118</i>	-.237** <i>.096</i>	-.113 <i>.11</i>	-.156 <i>.123</i>
concentration	.0059*** <i>.0018</i>	.0056*** <i>.0017</i>	.0055*** <i>.0017</i>	.0047*** <i>.0016</i>	.0057*** <i>.0018</i>
ovc/as	-.0294 <i>.0196</i>	-.0268 <i>.0191</i>	-.0367* <i>.0201</i>	-.0283** <i>.0138</i>	
law	.0386 <i>.0724</i>	.0506 <i>.0709</i>	.0574 <i>.0714</i>		-.0189 <i>.017</i>
assetshr ₂₀₀₁			-.0715*** <i>.0185</i>	-.0642*** <i>.0171</i>	.057 <i>.076</i>
cons	.3513** <i>.167</i>	.3251* <i>.163</i>	.4348** <i>.175</i>	.389** <i>.156</i>	.306* <i>.164</i>
substitutor	-.3055*** <i>.0812</i>	-.0729*** <i>.0181</i>	-.0043*** <i>.0015</i>	.1285** <i>.056</i>	-.064*** <i>.019</i>

Column 1: 42 observations; F-test P= 0.000; Ad-R²= 0.5382; AIC=-6.60; B-P heteroskedasticity test P=0.34;
Column 2: 42 observations; F-test P= 0.000; Ad-R²= 0.6437; AIC=-17.49; B-P heteroskedasticity test P=0.82;
Column 3: 42 observations; F-test P= 0.000; Ad-R²= 0.6404; AIC=-17.1; B-P heteroskedasticity test P=0.92;
Column 4: 43 observations; F-test P= 0.000; Ad-R²= 0.6672; AIC=-22.06; B-P heteroskedasticity test P=0.99;
Column 5: 42 observations; F-test P= 0.000; Ad-R²= 0.6068; AIC=-13.35; B-P heteroskedasticity test P=0.82;
Standard errors are listed in italics. ***, **, * = significant at 1%, 5%, 10%, respectively.

²⁶ Substituting variables' parameters estimation is listed in the last row of upper part of table 3.

To do so, I set a conservative commitment dummy variable, *cnsv*, which equals to one if a country made conservative commitments and equals to zero if a country made radical commitments. I added the both interaction term between *cnsv* and *regula* ($cnsv \times regula$), and between *cnsv* and *comt* ($cnsv \times comt$) to the benchmark specification, reporting the estimation results in column (1) of table 4. The coefficients of *regula* and *comt* show that countries, making radical commitments, have significant commitment impact. In order to find if countries with conservative commitments also have significant commitment impact, I deducted 1 from the numerical value of *cnsv* in the two above interaction terms, making two new ones, $(cnsv-1) \times regula$ and $(cnsv-1) \times comt$. The two new interaction terms were substituted for the old and the estimation results were listed in column (2) of table 4. The coefficients of *regula* and *comt* in column (2), representing the commitment effects of countries making conservative commitments, are insignificant respectively. But the joint-significant F test ($P=0.03$) rejects the hypothesis that the two coefficients are both zero. So, it seems that the co-linearity between *regula*, *comt* and interaction terms bias the estimation. To avoid the bias, I made two more specifications, putting only one interaction term into regression each time. The two estimation results are reported in column (3) and (4). Compared with column (2), column (3) eliminated $(cnsv-1) \times regula$. The coefficient of *comt* in column (3) shows that the commitment effect is insignificant in countries making conservative commitments. Compared with column (2), column (4) eliminated $(cnsv-1) \times comt$. The coefficient of *regula* in column (4) shows that the regulation effect is insignificant in countries making conservative commitments. It's helpful to identify the commitments effect in countries making conservative commitments if the better one of both column (3) and (4) can be justified. Unfortunately, based on Davidson-Mackinnon test and fit-of-goodness test, it is hard to tell which one is better. So, the analysis of table 4 shows that countries making conservative commitments present weak commitment effect.

In order to check the robustness of estimation results in table 4, I substituted *Assetshr₉₅₋₀₁*, the average value of lagged dependant variable in 1995, 1996 and 2001, for *Assetshr₂₀₀₁*. The estimation results are reported in table 5. Generally, the parameters in table 4 are similar with those in table 5. But for table 5,

Table 4: Estimation of conservative commitments effect

Dependent variable: $assetshr_{2005}$, OLS estimation				
	(1)	(2)	(3)	(4)
Regula	-.154*** .044	-.058 .048	-.11*** .033	-.015 .042
Comt	-.244*** .079	-.081 .058	-.042 .052	-.139*** .048
cnsv×regula	.096 .067			
cnsv×comt	.163 .098			
(cnsv-1)×regula		.096 .067		.132** .065
(cnsv-1)×comt		.163 .099	.209** .095	
GDP/cap	.00004*** .00001	.00004*** .00001	.00004*** .00001	.00004*** .00001
inflation	.0025 .0084	.0025 .0084	.001 .008	.004 .0086
taxrate	.04 .049	.04 .049	.033 .049	.0035 .045
credit/GDP	-.0022** .001	-.0022** .001	-.0022** .001	-.0025** .001
stmkcap/GDP	-.264** .124	-.264** .124	-.21* .12	-.237* .126
concentration	.0056*** .0017	.0056*** .0017	.005*** .0017	.0061*** .002
overhead/GDP	-.026 .018	-.026 .018	-.027 .019	-.026 .019
law	.049 .069	.049 .069	.035 .07	.067 .07
assetshr ₂₀₀₁	-.073*** .018	-.073*** .018	-.074*** .018	-.068*** .018
constant	.295* .159	.295* .159	.322** .16	.302* .163

Column 1: 42 observations; F-test $P=0.001$; $Ad-R^2=0.6706$; $AIC=-19.68$; B-P heteroskedasticity test $P=0.19$; jointly significant F test of two interaction terms, $P=0.042$

Column 2: 42 observations; F-test $P=0.001$; $Ad-R^2=0.6706$; $AIC=-19.68$; B-P heteroskedasticity test $P=0.19$; J significant F test of *comt* and *regula*, $P=0.03$; Jointly significant F test of two interaction terms, $P=0.042$

Column 3: 42 observations; F-test $P=0.001$; $Ad-R^2=0.6586$; $AIC=-18.71$; B-P heteroskedasticity test $P=0.51$;

Column 4: 42 observations; F-test $P=0.001$; $Ad-R^2=0.6508$; $AIC=-17.76$; B-P heteroskedasticity test $P=0.26$;

Standard errors are listed in italics. ***, **, * = significant at 1%, 5%, 10%, respectively.

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Davidson-MacKinnon test rejects the specification of column (4) at 10% level, so specification in column (3) is better. The results support that commitment effect are weak in countries making conservative commitments.

Table 5: Robustness test of conservative commitments effect

Dependent variable: assetshr ₂₀₀₅ , OLS estimation				
	(1)	(2)	(3)	(4)
Regula	-.143*** <i>.043</i>	-.059 <i>.047</i>	-.11*** <i>.033</i>	-.015 <i>.04</i>
Comt	-.24*** <i>.075</i>	-.077 <i>.056</i>	-.042 <i>.052</i>	-.135*** <i>.046</i>
cnsv×regula	.0845 <i>.0646</i>			
cnsv×comt	.163* <i>.095</i>			
(cnsv-1)×regula		.0845 <i>.065</i>		.121* <i>.063</i>
(cnsv-1)×comt		.163* <i>.095</i>	.209** <i>.095</i>	
GDP/cap	.000037*** <i>.000012</i>	.000037*** <i>.000012</i>	.000035*** <i>.000013</i>	.000037*** <i>.000012</i>
inflation	.0022 <i>.008</i>	.0022269 <i>.008</i>	.001 <i>.008</i>	.0038 <i>.008</i>
taxrate	.046 <i>.047</i>	.046 <i>.047</i>	.033 <i>.049</i>	.0093 <i>.043</i>
credit/GDP	-.002** <i>.001</i>	-.002** <i>.001</i>	-.0022** <i>.001</i>	-.0024** <i>.001</i>
stmktcap/GDP	-.258** <i>.119</i>	-.258** <i>.119</i>	-.21* <i>.12</i>	-.23* <i>.12</i>
concentration	.0057*** <i>.002</i>	.0057*** <i>.002</i>	.005*** <i>.0017</i>	.0062*** <i>.0017</i>
overhead/GDP	-.026 <i>.018</i>	-.026 <i>.018</i>	-.027 <i>.0187</i>	-.026 <i>.0183</i>
law	.044 <i>.067</i>	.044 <i>.067</i>	.035 <i>.07</i>	.063 <i>.068</i>
assetshr ₉₅₋₀₁	-.077*** <i>.017</i>	-.077*** <i>.017</i>	-.074*** <i>.018</i>	-.072*** <i>.017</i>
Cont.	.277* <i>.153</i>	.277* <i>.153</i>	.32* <i>.16</i>	.28* <i>.16</i>

Column 1: 42 observations; F-test P=0.000; Ad-R²=0.6941; AIC=-22.79; B-P heteroskedasticity test P=0.198; jointly significant F test of two interaction terms, P=0.045

column 2: 42 observations; F-test P=0.000; Ad-R²=0.6941; AIC=-16.05; B-P heteroskedasticity test P=0.71; Jointly significant F test of *comt* and *regula*, P=0.045

column 3: 42 observations; F-test P=0.000; Ad-R²=0.6586; AIC=-18.71; B-P heteroskedasticity test P=0.51;

Column 4: 42 observations; F-test P=0.001; Ad-R²=0.6734; AIC=-20.57; B-P heteroskedasticity test P=0.26;

Standard errors are listed in italics. ***, **, * = significant at 1%, 5%, 10%, respectively.

6. Conclusion

Based on the above analysis, it can be concluded that the negotiation commitments has significant impact on foreign banks expansion in developing countries. The more liberal the commitments are, the bigger market share the foreign banks have. Such effect does not depend on regulatory policies. And if the commitments are more liberal than regulatory policies, the effect is particularly strong. If the commitments are less liberal than regulatory policies, the effect is not significant again.

Most developing countries made conservative commitments in the financial negotiation of WTO. So the effect that conservative commitments did not promote foreign banks expansion possibly is what the most developing countries went after, and they did realize that aim.